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TSCA Confidential Business Information Center (7407M) EPA East Building, Room 6428 Attn: Section 8(e) U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, NW Washington, DC 20460-0001 (202) 564-8940

INVISTA S.à r.l.
INVISTA Building
4123 East 37th Street North
Wichita, Kansas 67220 USA

Phone: 316-828-1185 Fax: 316-828-1121 www.INVISTA.com

Re:

TSCA 8(e) Submission for a draft Toxicity Study on Triphenylboron, CASRN 960-71-4

Dear Sir:

INVISTA is submitting draft results from an OECD 422 screening study on Triphenylboron (TPB), CASRN 960-71-4, conducted by NOTOX Laboratories, in The Netherlands.

Four groups of rats were dosed with 0, 1, 3, or 10 mg/kg TPB, by gavage. Reproductive effects were noted in male and female rats treated with 10 mg/kg (Group 4) of TPB. Maternal toxicity was also present at this dose.

One Group 4 female failed to become pregnant, and only 5 of the 9 mated Group 4 females delivered. The mean number of Group 4 pups per litter was 5.4, which is significantly lower than the 11.3-12.0 pups/litter recorded in Groups 1-3.

In all of the Group 4 males examined to date, minimal to moderate degeneration of intratubular spermatozoa and bilateral oligospermia were observed in the initial histopathology review. Additional histopathology work is underway to confirm these results.

In addition to the above-mentioned reproductive effects, there were other potentially reportable subchronic findings in these draft results:

Clinical Signs

Slight lethargy was observed in a few males at 3 mg/kg from pre-mating Day 8 onwards, in all males at 10 mg/kg from pre-mating Day 1 onward, and in a few females at 10 mg/kg from Day 2 of mating onward. In addition, males at 10 mg/kg showed slight ptosis from pre-mating Day 9 onward. Hunched posture was noted in 2 males at 10 mg/kg from mating Day 7 onward.

Hematology

A dose-related increase in the number of monocytes relative to the number of white blood cells was noted in males starting at 1 mg/kg and reaching statistical significance at 10 mg/kg. In addition, a decreased total number of red blood cells together with increased red blood cell distribution width (RDW), decreased level of hemoglobin, and increased mean corpuscular volume (MCV) were recorded in males at 10 mg/kg.

Contains No CB!

CONTAINS NO CBI







Clinical Biochemistry

Increased levels of alanine transaminase (males) and aspartate transaminase (both sexes) were noted at 10 mg/kg. Increased levels of creatinine were recorded for males at 10 mg/kg. A dose-dependent decrease in cholesterol levels was recorded in males starting at 1 mg/kg and reaching statistical significance at doses of 5 and 10 mg/kg. Females at 10 mg/kg showed a decrease in phosphate levels.

Macroscopic Examination Findings

Two out of ten males at 3 mg/kg (animals 24 and 28) and 10 mg/kg (animals 34 and 35) showed an accentuated lobular pattern of the liver at necropsy. One animal in the high dose group (animal 34) displayed pale discoloration of the liver.

Microscopic Findings

Five of five Group 4 males displayed diffuse cortical lipidosis in the adrenal cortex.

Organ Weights

A significant lower thymus weight (before and after allowance for body weight) was noted for males at 10 mg/kg.

These findings do not necessarily indicate that Triphenylboron is a specific reproductive, developmental, neuro-, or sub-chronic toxicant. EPA guidelines generally require reporting of reproductive or developmental effects at any dose. Likewise, 8(e) guidelines encourage or require reporting of certain other effects, noted at low-doses, in sub-chronic studies.

The above information is from a draft study that has not yet been completed. INVISTA will submit the final version to EPA when it becomes available.

This report is being submitted in accordance with TSCA Section 8(e) guidance. No determination was made as to whether the findings in this study represent a significant health risk.

Sincerely,

Heather J. Blankinship

Product Safety Capability Manager

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Environmental Health and Safety